

FROM BIOWASTE TO BIOMETHANE: THE GHT DECANter CENTRIFUGE IN BIOWASTE MANAGEMENT PROCESS

The integration of Gennaretti® centrifugal system in biowaste management process involves a reduction of pollutants

Foglia Umberto SRL has chosen Gennaretti® decanter centrifuge for its biowaste treatment plant in Guglionesi, Italy. Biowaste - that is organic waste - represents an opportunity from a circular economy point of view and for renewable energy. At the same time, it has a problem in waste management, which can be reintroduced in biomethane generation process, if treated correctly.

Foglia Umberto SRL produces biomethane from organic waste of waste sorting



FOGLIA UMBERTO SRL

Foglia Umberto SRL is a company founded in 1986, with the aim to supply services concerning waste management to companies and local agencies. Today it operates in environmental sector and energetic recovery from renewable sources.

Over the years, it has dealt with different activities, such as waste and green maintenance, as well as waste selection, recovery and treatment.

The GHT decanter centrifuge in biowaste treatment



THE STARTING POINT

In its plant in Guglionesi, Italy, Foglia Umberto SRL produces biomethane to reintroduce in gas pipeline. The production occurs through an anaerobic digestion WET process of 35,000 tons per year of biowaste from waste sorting. The anaerobic digestion is supposed to ferment the biowaste without oxygen. Therefore, during the process, some VOCs are generated and among this, there is ammonia.

The company needs to treat the digestate deriving from the digestion process in order to dispose it of and to remove ammonia and VOCs, since they are the main pollutants.

The Gennaretti® decanter centrifuge separates into dry solid and liquid and reduces VOCs quantity



THE SOLUTION

Gennaretti® has supplied a GHT 51VF decanter centrifuge for the digestate treatment. The plant is provided turnkey, with all the mechanical and electronic components, homogenization tanks and polymer preparation station for the flocculation and separation of the finest particles.

During biowaste disposal through anaerobic digestion process, ammonia management is one of the main difficulties. Beyond being pollutant, it has corrosive characteristics, which can be a problem in disposal and treatment plants. This aspect has influenced the Gennaretti® decanter centrifuge choice, since it is resistant to corrosion for its construction in stainless steel and it guarantees a continuous process.

The construction quality affects also the production of dry solid, which will be 5-6% more than the standards.

THE ARRIVAL POINT

The digestate treatment allows an improvement in the overall plant performance. The separation into dry solid permits the VOC abatement, reducing disposal volumes and pollutants quantity in the clarified liquid, which now can be easily treated by third parties.

In Foglia Umberto Srl pant, the clarified liquid will be further treated by an internal depuration system and the water produced will be for internal use or discharged in surface waters.

“The plant is reliable for the performances and continuity it guarantees” says Ing. Marco Piantatelli of Foglia Umberto SRL “moreover, the personal relationship with the property is really positive”.

WATCH THE INTERVIEW AND DISCOVER MORE: <https://youtu.be/ZejZYR0XfoU>

Dry solid can be transported to third parties

